



JUSTIS Phase Four

- System Performance
- ODC2 JUSTIS IP Migration
- LXML to GJXDM Conversion
- Notification System

COMPLETED PRIOR TO ISSUANCE OF A STATEMENT OF WORK – 04/11/04

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SEI DEFINITION OF RISK

Risk is the possibility of suffering loss.

In a project, the loss describes the impact to the project which could be in the form of diminished quality of the end product, increased costs, delayed completion, or failure.

RISK MANAGEMENT is an engineering practice with processes, methods, and tools for managing risks in a project. It provides a disciplined environment for proactive decision-making to:

- Assess continuously what can go wrong (risks).
- Determine what risks are important to deal with.
- Implement strategies to deal with risks.



The SEI Risk Management paradigm

For more information, visit

→ <http://www.sei.cmu.edu/publications/documents/93.reports/93.tr.006.html>

**Input****Process****Outputs****S**

Project constraints

**Identify**

Identify risk issues & concerns

Statement of risk
(list)Risk data: technical
analysis, expert opinion,
Effect Analysis, Fault
Tree Analysis, LLA**Analyze**Evaluate (impact, probability, timeframe),
classify, & prioritize risksRisk evaluation
Risk
classification
Risk prioritizationResource
s**Plan**

Decide what should be done about the risk

Risk mitigation plans
Risk acceptance rationale
Risk tracking requirements

Project data (metrics)

**Track**Monitor risk metrics & verify mitigation
actions

Risk status reports

ControlRe-plan mitigations, close risks, invoke
contingency plans.Risk
decisions



Strategic Risk		
To what degree is the project's purpose aligned with the agency's overall business strategy?		
<i>This question assesses the degree of alignment between the project objectives and the agency's business objectives.</i>		
1	1. Project objectives have been clearly documented and can be linked to specific agency business objectives	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. The project direction is consistent with the business strategy but the relationship has not been clearly documented	
	5. Project objectives are not clearly related to the business strategy	
	7. Some or all project objectives may be in conflict with the stated strategy for the business	
How clearly are the expected project outcomes defined?		
<i>This question is concerned with the way in which project objectives have been set. Vague objectives increase the probability that project outcomes vary from the expectations/input of the project supervisors.</i>		
1	1. Outcomes are well defined	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	3. Outcomes are minimally defined	
	5. Outcomes are broadly defined	
	7. Outcomes are not clearly defined or contain little detail	
Have metrics been established to verify the successful completion of each project phase?		
<i>This question addresses the need to have a means of measuring project completion. Without these means risk is increased.</i>		
3	1. Established for each phase of the project	Mitigation Plan: Each major activity within the project has a deliverable for review and approval. The vendor will submit a detailed work plan prior to permission to proceed. All goals and deliverable are required to be identified and will then be tracked at weekly status meetings.
	3. Established for the first phase of the project	
	5. Metrics to determine the success of the total project have been established but not specific to a phase	
	7. No metrics have been established	
To what extent are senior management committed to the project and its outcomes?		
<i>The project is at much risk without the commitment from the senior management team.</i>		
1	1. Senior management are fully committed and have openly endorsed the project	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. Senior management agree with the need for the project, but it does not represent their highest priority	
	4. Senior management does not have a consensus regarding the project	
	7. The consensus of senior management is that the project is not warranted	
How severe would be the result of late delivery?		
<i>This question probes the urgency to which the new system is needed to perform the business processes.</i>		
2	1. No noticeable disruption of the business	Mitigation Plan: As the facilities being developed in this phase do not exist in the current environment and therefore are not part of current business practices, a late delivery will have no direct affect.
	2. Some disruption to limited, non-critical areas of the business	
	4. Some disruption to critical, time-valued areas of the business	
	6. Major disruption to the business because the new system is critical to the core business functions	
Financial Risk		
What is the end-to-end expenditure that this project will require?		
	<i>This question assesses the overall financial risk to the State for the entire project (including all phases).</i>	



1	1. Less than \$10 M	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. Between \$10 M and \$20 M	
	5. Between \$20 M and \$40 M	
	7. Greater than \$40 M	
Are the cost/benefits clearly defined with a documented write-up? <i>This question will gauge the economic feasibility of the project. Without clear financial need for the proposed system, there is a risk that management will not see the need for the project.</i>		
N/A	1. Yes, a cost/benefit analysis has been performed by a qualified, experienced resource	Mitigation Plan: A true cost/benefit analysis is not possible or practical, see #2 below.
	2. Yes, a cost/benefit analysis has been performed by an entity not necessarily having experience	
	4. Cost/benefits have been informally derived but not clearly documented	
	6. No cost/benefit analysis has been performed yet	
Is there a clearly defined payback for this system? <i>This measures the economic justification for a project. Projects with little or no payback often get canceled.</i>		
3	1. There is a clearly defined payback and it is fully justified	Mitigation Plan: No public safety system information system can withstand a cost/benefit analysis without placing an arbitrary value on both human life and the value of a catastrophe which cannot be defined, not occurring.
	3. There is not a clearly defined payback but the system is necessary regardless (i.e. for public safety, etc.)	
	5. There is a payback period but it is not clearly defined	
	9. There is neither a payback period nor apparent justification on the basis of public safety	
What is the payback time for the project? <i>It is necessary to determine if the length of time to pay off the project investment is short enough to justify continuing the project.</i>		
1	1. The payback period is within 2 years	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. The payback period exceeds 2 years but less than 4 years	
	3. The payback period will be greater than 4 years	
	5. The payback period has not been quantified	
To what degree have existing expenditures met budgeted amounts? <i>This question will assess the current budget performance to date.</i>		
1	1. Existing expenditures have consistently been within budget amounts	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. Most expenditures have been within the budget amounts with a small percentage exceeding budget amounts	
	6. Some significant expenditures have exceeded budget amounts with others remaining within budget	
	8. Existing expenditures have consistently exceeded budget amounts or clear budgets have not yet been established	
Is the vendor well established in the business community with a strong financial background? <i>This question is intended to measure the vendor's viability in the community.</i>		
N/A	1. The vendor is well established and in good financial condition	Mitigation Plan: The competitive procurement process will require a well established vendor in good financial condition.
	3. The vendor is well established, but financial condition is unknown	
	4. The vendor has been established for less than two years	
	5. The vendor is a startup business with little financial history	
Project Management Risk Does the project management team have relevant experience?		



<i>This question determines the degree of experience in dealing with similar sized projects.</i>		
1	1. Members of the project management team have experience leading projects of similar size and complexity	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	4. Members of the project management team have had exposure to projects of similar size and complexity but not in lead roles	
	7. Members of the project management team have had limited exposure to projects of similar size and complexity and generally lack detailed knowledge	
	9. Members of the project management team have no experience with projects of similar size and complexity	
To what extent has a workplan been developed for the entire project lifecycle?		
<i>This question determines if the proper resource levels have been ascertained throughout the whole project.</i>		
2	1. A detailed workplan has been created using an industry accepted methodology and experience from projects of similar size and scope	Mitigation Plan: A detailed work plan has been developed for Phase 3.1. However, although the Blueprint and Technical Design specifications are detailed, the second phase, 3.2, cannot be detailed until both Phase 3.1 deliverables are complete.
	2. A workplan has been created using detailed project estimates; but not based on a comparable project	
	3. A workplan has been created using general areas of the project lifecycle, but there is not a clear understanding yet of the needed resources	
	7. No workplan exists at this time.	
To what degree have critical checkpoints and milestones been established for this project?		
<i>This questions determines if established checkpoints have been made for the project. This will allow the project managers to more effectively reach project milestones.</i>		
1	1. Clearly measurable and achievable milestones with firm dates have been created throughout the entire project lifecycle	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	3. Milestones, although not clearly measurable, with firm dates have been set for part of the project	
	4. Milestones have been created for the project but dates are not firmly set	
	7. No milestones or checkpoints exist at this time	
What is the total elapsed time of the project from start to finish?		
<i>Longer projects typically are at more risk than shorter ones. This is because more influencing factors may be introduced throughout the life of the project.</i>		
2	1. 1 - 6 months	Mitigation Plan The initial phase is just over 3 months. However, as stated in the question above, until the deliverables are completed, there can be no estimate of the length of the second phase. Experience points to a performance period longer than 6 months.
	2. 7 - 12 months	
	3. 13 - 24 months	
	6. More than 24 months	
Have scope changes occurred which appear to exert pressure on schedule demands?		
<i>This question will determine if the business requirements of the project have recently changed. Any such change can negatively impact the success of the project.</i>		
2	1. No scope changes have occurred	Mitigation Plan: Scope changes have been very few and very small. As the PMT has completed review of the plan and the SOW, there will be almost no opportunity for future scope changes until the results of Phase 3.1 are in.
	2. Yes, but only small changes have been made and have been well documented	
	3. Yes, significant scope changes have been made and have been well documented	
	7. Yes, significant changes have been made and have not been clearly documented	
To what degree have 'open issues' been tracked and included as part of ongoing management processes?		
<i>This question probes the level of management involvement in day-to-day activities. Issue tracking is important so that unresolved issues do not pose a threat to the success of the project.</i>		



1	1. There is proven method of issue tracking and resolution currently in place and is widely used by all parties	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. There is a method of issue tracking and resolution currently in place and is generally used by all parties	
	3. Open issues are dealt with on an item-by-item basis and are not tracked using a standard method	
	7. There is no clear issue tracking or resolution approach in use on the project	
Is the project development team organized and deployed to a single location?		
<i>The project contains more risk if the development sites are spread out in various locations.</i>		
	1. All development team members are together with daily interactions with the users	Mitigation Plan: The requirements for a regional implementation require regional participation. As a consequence, the SQC and PMT are in dispersed locations. As the SHIELD effort has no "home" in one particular location and there is neither room nor budget for on-site contractual support, the vendor(s) will not be on the SHIELD office primary location.
	5. All development team members are co-located but have limited user contact	
7	7. Development team members are in multiple locations but meet regularly	
	9. Development team is located off site and rarely get together as a whole	
To what degree are the development and user skill requirements well defined?		
<i>This question explores the level of detail to which skill requirements have been defined.</i>		
	1. Skill requirements with corresponding time frame requirements have been clearly documented for all phases of the project	Mitigation Plan: The over-all timeframe is defined as 100 working days. However until the PMT reviews and approves the detailed work plan, the time requirements within the plan will not be defined.
2	2. Skill requirements have been clearly documented for all phases of the project but do not include corresponding time frame requirements	
	4. Skill requirements are loosely defined for the project	
	7. Skill requirements are vague or not well defined for the project	
Technology Risk		
Is there a plan for ensuring that deliverables meet the need of the users?		
<i>This question intends to evaluate whether or not users are sufficiently included in the most important phase, final delivery.</i>		
1	1. There is a plan to ensure that the needs of the users are thoroughly met	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. The plan for verification of user deliverables is nearly complete	
	5. The plan for ensuring user deliverables is in the conceptual phase	
	9. There is no plan for ensuring that deliverables meet users needs	
How thoroughly have the technology options been evaluated?		
<i>This question explores how the options for all aspects of the hardware and software environment have been selected.</i>		
	1. Experienced technical specialists performed a comprehensive evaluation of options using a proven methodology	Mitigation Plan: The technology is new and the experienced technical participants have every reason to believe the technology will be exactly as needed and will perform exactly as required.
2	2. Experienced technical specialists made recommendations based on prior experiences	
	5. Recommendations for the options were made by key functional personnel	
	7. A detailed evaluation has not yet been performed	
What is the knowledge of the proposed technology environment?		
<i>This question is concerned with the degree of knowledge available to the project team of the chosen hardware and operating system.</i>		
	1. The proposed platform is well understood by the project team and any technical difficulties that emerge are likely to be handled in house	Mitigation Plan: The search engine technology is very well understood by those with experience in the field. However this level of application is a new endeavor. Vendors, the city's OCTO and the JUSTIS staff have been
2	2. There are parts of the platform that are very clearly understood, however, aspects of the new platform will be seen for the first time.	
	3. The platform is not well known to the project team but specialized expertise is readily available from vendors or constituents	



	7. The platform is not well know to the project team and specialized expertise is not easily available	preparing for this implementation.
Do the key technologies appear to be the appropriate foundation given the system design?		
<i>This question assesses the degree to which the chosen technologies will be maintainable and upgradeable.</i>		
1	1. There is every reason to believe that the proposed technology represents a solid foundation for the near future.	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. Certain components may reach the end of their lifecycle before the system does, but there is a high probability that there will be an upgrade path for replacement	
	5. Certain components may reach the end of their lifecycle before the system does and there does not appear to be a logical upgrade path	
	7. Various components appear to have reached the end of their lifecycle and more advanced technology exists in the market or technology foundation has yet to be determined	
How many existing computer systems must the project system interact with?		
<i>This question addresses the number of different computer interfaces which must be managed in order to complete the project.</i>		
	1. A limited number of interfaces	Mitigation Plan: There are a large number of servers and interfaces involved in JUSTIS. They and their owner organizations have been involved in the ITAC for over four years. The ITAC will continue to coordinate and manage this effort.
	2. A moderate number of interfaces	
5	5. A large number of interfaces	
	6. The number of interfaces is not known	
To what extent will the new system enable de-installation of the existing system?		
<i>This question will assess the degree to which the proposed system replaces an existing system process.</i>		
	1. The new system will completely replace an existing system or an existing system does not exist	Mitigation Plan: There is no reason to destroy the base functionality that JUSTIS has provided. To the contrary, many may find the existing approaches are familiar and comfortable, and best for existing business processes.
	2. The new system will be a new layer that will lead to the eventual replacement of an existing system	
3	3. The new system will be a new layer and there is not a business case for the elimination of any existing systems	
	4. The new system will be run in parallel to an existing system	
What is the vendor's ability to implement the technology?		
<i>This question measures the risk associated with vendor experience or lack of it.</i>		
1	1. The vendor has successfully completed a number of previous implementations	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	3. The vendor has successfully completed some previous implementations (1-3)	
	5. The vendor has limited experience with this technology	
	7. The vendor has not previously implemented this technology	
Change Management / Operational Risk		
How is the acceptance testing plan being developed?		
<i>This question explores the assumptions about the way in which testing has been planned and conducted.</i>		
1	1. Acceptance planning is being developed using an industry accepted methodology with comprehensive input from user experts	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. Acceptance planning is being developed by using an industry accepted methodology with limited input from user experts	
	3. Acceptance planning is being developed by using an approach based upon prior experiences but no formal methodology	
	5. Acceptance planning has not yet been completed	



Is there a project transition plan for this project?		
<i>This measures the ability for the agency to assume responsibility for the continued operations of system or future steps of the project lifecycle.</i>		
	1. There is a clearly defined transition plan and the agency has activity planned and budgeted for the future of the project or system.	Mitigation Plan: The only mitigation is for a long-term funding stream to be generated. At this time the only alternatives are to ask the CJCC to provide or to shut the system down.
5	5. There is a clearly defined transition plan and the agency has accepted this plan but has not yet budgeted funds to support this project or system.	
	7. There is a transition plan in work.	
	9. There is neither a transition plan nor the agency acknowledgement that they have funding responsibilities	
Is the proposed hardware/software environment in production already within the organization?		
<i>This question addresses the additional problems which might be posed by introducing new and possible unfamiliar facilities as well as a new system</i>		
1	1. The environment is in production and well established	Mitigation Plan Issue is addressed and no mitigation is required; see SOW.
	3. The environment is currently in use in production but not well established and subject to changes	
	4. The environment is currently in use for development efforts but has not yet been established in production	
	5. Hardware/software environment is not currently in use	
How clearly defined are the system operating procedures		
<i>This question evaluates the thoroughness of system documentation for maintenance purposes.</i>		
1	1. Well defined with easy, well documented, legible procedures	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	3. Maintenance procedures exist and some documentation exists	
	5. Maintenance procedures exist but documentation is limited	
	9. System maintenance procedures are not clearly defined or documented	
How severely would business be impacted by a system failure?		
<i>This question probes the reliance, which the business will place upon the system when it is operational.</i>		
	1. Minimal impact- system is not critical to daily business functions	Mitigation Plan: After implementation, the tools, particularly the search engine and the link analysis, are expected to become integral to new business processes. Loss after implementation could be critical. Disaster Recovery Plans will be updated to address even temporary loss of the system or facilities. Coordination with OCTO has already been initiated on this issue.
	3. Moderate impact - system is critical to business, but a well documented, automated contingency approach exists	
5	5. Significant impact - system is critical to the business and contingency plan relies on work-around	
	9. Severe impact - system is critical to the business and there is no well documented contingency plan	
What will be the magnitude of change that the new system will impose upon the users?		
<i>This question will determine how much change the system will inflict upon the organization. The more change a project brings to the organization the less likely people are willing to accept it.</i>		
	1. The new system will impose very little change, if any, upon the users	Mitigation Plan: The changes WILL NOT BE REQUIRED, however the improvements will be so impressive, they will, by their very nature, cause significant changes. Training and documentation are key; however the involvement by the user community in this project will reduce unexpected impact.
	2. The new system will change slightly the current daily operations of the users	
5	5. The new system will require significant changes by the users and will require training	
	8. The new system will present an entirely new way for the users to complete daily operations	
Are agency staff willing to accept this change?		
<i>This question determines if the staff are positive and committed to accepting the new system.</i>		
1	1. Staff is well informed about the change and show strong enthusiasm	



	3. Probably, staff seem enthusiastic but there has been no formal evaluation of their enthusiasm or detailed knowledge of the change	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	5. Unclear, only limited or informal feedback from staff has been received	
	9. No, firsthand feedback clearly indicates reluctance to the change	
Will staff numbers be reduced as a result of implementing the system?		
<i>This question determines if employees will be threatened by the new system. If so, risk of users not accepting the system increases.</i>		
1	1. There will not be a reduction in staff as a result of the new system	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	2. A small number of reductions is expected to isolated areas of the organization	
	5. Numerous reductions are expected to several levels of the organization	
	6. Staffing projections have not been completed	
Will multiple business organization units be affected by the new system?		
<i>This question will determine the number of business units that will be affected by the new system. The more business units involved, the increased risk of the project.</i>		
	1. There will only be one business organization affected	Mitigation Plan: Any number of units within any number of agencies will be affected. Documentation and training will reduce impact. However, the fact the user community has been involved since the inception of the project will be the greatest boo to reduce impact.
	2. Multiple business units within the same agency will be affected	
7	7. Multiple business units in several agencies will be affected	
	9. Multiple business units across several levels of state government (e.g. state, county, local) will be affected	
To what degree are changes to the current business processes being managed?		
<i>This question assesses how well changes to current process have been planned.</i>		
	1. There is a well documented plan in place for the redesign of the changed processes with a detailed rollout schedule	Mitigation Plan: See question and mitigation above.
	3. There is a well documented plan in place for the redesign of the changed processes but a detailed rollout schedule has not yet been developed	
5	5. New process changes have been considered but are not clearly defined and documented	
	6. Process changes have not yet been considered	
What is the level of user involvement in the project?		
<i>This question measures the level of user involvement with the notion that less user involvement increases risk of success.</i>		
1	1. The users are involved and have a permanent presence on the project team.	Mitigation Plan: Issue is addressed and no mitigation is required; see SOW.
	3. The users are available for consultation and to provide functional advice.	
	7. The users are minimally engaged on the project and clarification of requirements is difficult.	
	9. The users are not involved in the project.	

	Strategic	Financial	Project Management	Technology	Operational	Total
Total Question Answered (without N/A)	5	4	8	7	11	35
Sum of answer numbers for each category	8	6	18	15	33	80
Score (Sum of Question #/number of questions answered)	1.6	1.5	2.6	2.1	3.0	2.2